

DRAFT
MEPA CHECKLIST

Part I. Proposed Action Description

1. Type of Proposed State Action Sinkhole / Depression Repair on the Nilan East Dam

2. Agency Authority for the Proposed Action

Owner: MT Dept. of Natural Resources and Conservation; Sec. 85-1-219 (3) (1997), MCA.

3. Name of Project Nilan East Dam Sinkhole / Depression Repair

4. Name, Address and Phone Number of Project Sponsor (if other than the agency)

MT. Dept. of Natural Resources & Conservation, 48 N. Last Chance Gulch, P.O. Box 201601, Helena, MT 59620 – 1601 (406) 444-6646

5. If Applicable: Estimated Construction/Commencement Date October 18, 1999
Estimated Completion Date November 29, 1999
Current Status of Project Design (% complete) 25%

6. Location Affected by Proposed Action (county, range and township)

Lewis & Clark County - Township 20N, Range 7W

7. Project Size: Estimate the number of acres that would be directly affected that are currently:

- | | | | | |
|-----|-------------------|-----|--------------------------|------------------|
| (a) | Developed: | (c) | Floodplain..... | <u>acres</u> |
| | Residential..... | | | |
| | Industrial..... | (d) | Productive: | |
| | Open Space/ | | Irrigated cropland | <u>acres</u> |
| | Woodlands / | | Dry cropland | <u>acres</u> |
| | Recreation..... | | Forestry | <u>acres</u> |
| | | | Rangeland | <u>acres</u> |
| (b) | Wetlands/Riparian | | Other..... | <u>acres</u> |
| | Areas | | | |
| | | (e) | Other: earthen dam.... | <u>9/10 acre</u> |

8. Map/site plan: attach an original 8 1/2" x 11" or larger section of the most recent USGS 7.5' series topographic map showing the location and boundaries of the area that would be affected by the proposed action. A different map scale may be substituted if more appropriate or if required by agency rule. If available, a site plan should also be attached.

Vicinity maps, topographic map and construction sketch attached.

9. Narrative Summary of the Proposed Action or Project including the Benefits and Purpose of the Proposed Action.

Nilan East Dam is located 6 miles west of Augusta, Montana in Lewis & Clark County. The dam is owned by the Montana Department of Natural Resources and Conservation. The dam is an earthfill structure constructed in 1951. The dam has a length of 1,010 feet and is 51 feet high. The reservoir can store approximately 15,600-acre feet of water at full pool. The project is being initiated to repair a sinkhole / depression that appeared on the reservoir side of the dam this past summer. The repair is to prevent further sinkhole / depression expansion and development. A similar sinkhole occurred during the spring of 1999. Failure to repair this new sinkhole / depression could threaten the integrity of the dam, resulting in an increased threat to persons and property downstream, particularly should a major flood episode occur. This would be an unacceptable risk due to the high hazard classification of the dam. A dam is classified as high hazard if failure of the dam would endanger lives and property downstream.

The proposed action involves a cut and fill operation to stabilize the affected area. Approximately three to five thousand cubic yards of material would be removed from the affected area and regraded into a new patch, with a new slope established that will tie into the existing patch completed this past spring. A fabric filter mat would be placed over the sub-grade, with a sand filter layer placed over the fabric. A tracked excavator, front-end loader and/or backhoe will be the equipment used for the project. The reservoir water level would be lowered to approximately 2000-3000 acre-feet of water during the construction process, with the majority of the work performed above the water level. The reservoir will be slowly raised over the winter after the repairs are made. The overriding goal of this project is to maintain the highest possible level of protection for the public and property located downstream from this high hazard dam. A 3A-permit application, 124-permit application and 404-permit application have been submitted to the Montana Department of Environmental Quality, Montana Fish, Wildlife & Parks and the Army Corps of Engineers, respectively. DEQ informed DNRC that a Storm Water Permit and Erosion Control Plan are not necessary for this project.

10. Listing of any other Local, State or Federal agency that has overlapping or additional jurisdiction.

(a) Permits:

<u>Agency Name</u>	<u>Permit</u>	<u>Date Filed/#</u>
MT Dept. of Environmental Quality	3a	10/1/99
MT Dept. of Fish, Wildlife & Parks	124	10/1/99
U.S. Army Corps of Engineers	404	10/1/99

10. (Continued)

(b) Funding:

Agency Name _____ Funding Amount

Cost tentatively to be shared between MT Dept. of Natural Resources and Conservation and the Nilan Water Users Association - total project cost estimated range - \$50,000 to \$150,000

(c) Other Overlapping or Additional Jurisdictional Responsibilities:

Agency Name _____ Type of Responsibility

N/A

11. List of Agencies Consulted during Preparation of the EA:

MT Dept. of Environmental Quality

MT Dept. of Fish, Wildlife & Parks

U.S. Army Corps of Engineers

Part II. Environmental Checklist Review

1. PHYSICAL ENVIRONMENT

IMPACTS

Unknown *	No Impacts	Minor Impacts*	Potentially Significant Impacts*	Can Impacts be Mitigated*	Comment Index
1. LAND RESOURCES					
Will the proposed action result in:					
	X				
a. Soil instability or changes in geologic substructure?		X			1b.
b. Disruption, displacement, erosion, compaction, moisture loss, or over-covering of soil which would reduce productivity or fertility?					
c. Destruction, covering or modification of any unique geologic or physical features?	X				
d. Changes in siltation, deposition or erosion patterns that may modify the channel of a river or stream or the bed or shore of a lake?		X			1d.
e. Exposure of people or property to earthquakes, landslides, ground failure, or other natural hazard?	X				
f. Other: _____					

1 b & d.) Site disturbance would occur on the reservoir side of the dam during construction. Some soil compaction may occur due to heavy equipment operation. 3000 to 5000 cubic yards of soil would be removed and regraded into an existing patch used to repair a similar sinkhole / depression that occurred in the spring of 1999. Effects would be minor in the short-term due to the majority of the work being accomplished above the water level, and the lowering of the reservoir before construction begins. Effects are negligible in the long-term because of reclamation of areas disturbed during construction.

PHYSICAL ENVIRONMENT
(Continued)

IMPACTS

Unknown*	No Impacts	Minor Impacts*	Potentially Significant Impacts*	Can Impacts be Mitigated*	Comment Index
<p>2. AIR</p> <p>Will the proposed action result in:</p> <p>a. Emission of air pollutants or deterioration of ambient air quality?</p> <p>b. Creation of objectionable odors?</p> <p>c. Alteration of air movement, moisture, or temperature patterns or any change in climate, either locally or regionally?</p> <p>d. Adverse effects on vegetation, including crops, due to increased emissions of pollutants?</p> <p>e. Other: _____</p>		<p>X</p> <p>X</p>			<p>2a</p> <p>2b</p>

2 a. & b.) During construction, heavy equipment emissions will contain some pollutants and odors.

PHYSICAL ENVIRONMENT

IMPACTS

Unknown*	No Impact	Minor Impacts*	Potentially Significant Impacts*	Can Impacts be Mitigated*	Comment Index
3. WATER					
Will the proposed action result in:					
a. Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity?		X			3a
b. Changes in drainage patterns or the rate and amount of surface runoff?	X				
c. Alteration of the course or magnitude of flood water or other flows?	X				
d. Changes in the amount of surface water in any water body or creation of a new water body?		X			3d
e. Exposure of people or property to water related hazards such as flooding?	X				
f. Changes in the quality of groundwater?	X				
g. Changes in the quantity of groundwater?	X				
h. Increase in the risk of contamination of surface or groundwater?	X				
i. Violation of the Montana Non-Degradation Statute?	X				
j. Effects on any existing water right or reservation?	X				
k. Effects on other water users as a result of any alteration in surface or groundwater quality?	X				
l. Effects on other users as a result of any alteration in surface or groundwater quantity?	X				
m. Other: _____					

3 a.) Short-term impacts to reservoir water quality may occur due to possible increases in turbidity during construction. The effects would be minimized by the lowering of the reservoir before construction and the majority of work being performed above the water level. Long-term impacts are negligible. 3 d.) Short-term impacts will occur in the amount of surface water by lowering the reservoir to approximately 2000 to 3000 acre-feet of water during the construction process. The effects would be negligible to downstream water users and fisheries habitat and end with the completion of the project. Refilling of the reservoir would begin after construction is completed.

PHYSICAL ENVIRONMENT
(Continued)

IMPACTS

Unknown*	No Impacts	Minor Impacts*	Potentially Significant Impacts*	Can Impacts be mitigated*	Comment Index
4. VEGETATION					
Will the proposed action result in:					
a. Changes in the diversity, productivity or abundance of plant species (including trees, shrubs, grass, crops, and aquatic plants)?	X				
b. Alteration of a plant community?	X				
c. Adverse effects on any unique, rare, threatened, or endangered plant species?	X				
d. Reduction in acreage or productivity of any agricultural land?	X				
e. Establishment or spread of noxious weeds?		X			4e
f. Other: _____					

4 e.) An increase in noxious weeds may occur due to soil disturbance and equipment operation. Effects are negligible in the long-term because of reclamation and weed control implementation.

PHYSICAL ENVIRONMENT
(Continued)

IMPACTS

Unknown*	No Impacts	Minor Impacts*	Potentially Significant Impacts*	Can Impacts be Mitigated*	Comment Index
<p>5. <u>FISH/WILDLIFE</u></p> <p>Will the proposed action result in:</p> <p>a. Deterioration of critical fish or wildlife habitat?</p> <p>b. Changes in the diversity or abundance of game animals or bird species?</p> <p>c. Changes in the diversity or abundance of nongame species?</p> <p>d. Introduction of new species into an area?</p> <p>e. Creation of a barrier to the migration or movement of animals?</p> <p>f. Adverse effects on any unique, rare, threatened, or endangered species?</p> <p>g. Increase in conditions that stress wildlife populations or limit abundance (including harassment, legal or illegal harvest or other human activity)?</p> <p>h. Other: _____</p>	<p>X</p> <p>X</p> <p>X</p> <p>X</p> <p>X</p> <p>X</p> <p>X</p>				

2. HUMAN ENVIRONMENT

IMPACTS

Unknown*	No Impacts	Minor Impacts*	Potentially Significant Impacts*	Can Impacts be Mitigated*	Comment Index
<p>6. NOISE/ELECTRICAL EFFECTS</p> <p>Will the proposed action result in:</p> <p>a. Increases in existing noise levels?</p> <p>b. Exposure of people to severe or nuisance noise levels?</p> <p>c. Creation of electrostatic or electromagnetic effects that could be detrimental to human health or property?</p> <p>d. Interference with radio or television reception and operation?</p> <p>e. Other: _____</p>		X			6a
		X			6b
	X				
	X				

6 a & b.) Noise levels will increase temporarily during the construction period.

HUMAN ENVIRONMENT
(Continued)

IMPACTS

Unknown*	No Impacts	Minor Impacts*	Potentially Significant Impacts*	Can Impacts be Mitigated*	Comment Index
<p>7. LAND USE</p> <p>Will the proposed action result in:</p> <p>a. Alteration of or interference with the productivity or profitability of the existing land use of an area?</p> <p>b. Conflict with a designated natural area or area of unusual scientific or educational importance?</p> <p>c. Conflict with any existing land use whose presence would constrain or potentially prohibit the proposed action?</p> <p>d. Adverse effects on or relocation of residences?</p> <p>e. Other: _____</p>	<p>X</p> <p>X</p> <p>X</p> <p>X</p>				

**HUMAN ENVIRONMENT
(Continued)**

IMPACTS

Unknown*	No Impacts	Minor Impacts*	Potentially Significant Impacts*	Can Impacts be Mitigated*	Comment Index
<p>8. RISK/HEALTH HAZARDS</p> <p>Will the proposed action result in:</p> <p>a. Risk of an explosion or release of hazardous substances (including but not limited to oil, pesticides, chemicals, or radiation) in the event of an accident or other forms of disruption?</p> <p>b. Affect an existing emergency response or emergency evacuation plan or create a need for a new plan?</p> <p>c. Creation of any human health hazard or potential hazard?</p> <p>d. Other: _____</p>	<p>X</p> <p>X</p> <p>X</p>				

HUMAN ENVIRONMENT
(Continued)

IMPACTS

Unknown*	No Impacts	Minor Impacts*	Potentially Significant Impacts*	Can Impacts be Mitigated*	Comment Index
<p>9. <u>COMMUNITY IMPACTS</u></p> <p>Will the proposed action result in:</p> <p>a. Alteration of the location, distribution, density, or growth rate of the human population of an area?</p> <p>b. Alteration of the social structure of a community?</p> <p>c. Alteration of the level or distribution of employment or community or personal income?</p> <p>d. Changes in industrial or commercial activity?</p> <p>e. Increased traffic hazards or effects on existing transportation facilities or patterns of movement of people and goods?</p> <p>f. Other: _____</p>	<p>X</p> <p>X</p> <p>X</p> <p>X</p> <p>X</p>				

HUMAN ENVIRONMENT
(Continued)

IMPACTS

Unknown*	No Impacts	Minor Impacts*	Potentially Significant Impacts*	Can Impacts be Mitigated*	Comment Index
<p>10. <u>PUBLIC SERVICES/ TAXES/UTILITIES</u></p> <p>Will the proposed action:</p> <p>a. Have an effect upon or result in a need for new or altered governmental services in any of the following areas: fire or police protection, schools, parks/recreational facilities, roads or other public maintenance, water supply, sewer or septic systems, solid waste disposal, health, or other governmental services? If any, specify: <u>parks/recreational facilities</u></p> <p>b. Have an effect upon the local or state tax base and revenues?</p> <p>c. Result in a need for new facilities or substantial alterations of any of the following utilities: electric power, natural gas, other fuel supply or distribution systems, or communications?</p> <p>d. Result in increased use of any energy source?</p> <p>e. Other: _____</p>	<p>X</p> <p>X</p> <p>X</p> <p>X</p>				

HUMAN ENVIRONMENT
(Continued)

IMPACTS

Unknown*	No Impacts	Minor Impacts*	Potentially Significant Impacts*	Can Impacts be Mitigated*	Comment Index
<p>11. AESTHETICS/ RECREATION</p> <p>Will the proposed action result in:</p> <p>a. Alteration of any scenic vista or creation of an aesthetically offensive site or effect that is open to public view?</p> <p>b. Alteration of the aesthetic character of a community or neighborhood?</p> <p>c. Alteration of the quality or quantity of recreational opportunities and settings?</p> <p>d. Other: _____</p>		X			11a
	X				
		X			11c

11 a & c.) Construction will temporarily affect the aesthetics of the area in the short-term. Some anglers and picnickers or campers may be impacted. The quality of the recreational opportunities and setting will be temporarily impacted during construction. The effects will be short-term and end with the completion of the project.

HUMAN ENVIRONMENT
(Continued)

IMPACTS

Unknown*	No Impacts	Minor Impacts*	Potentially Significant Impacts*	Can Impacts be Mitigated*	Comment Index
<p>12. <u>CULTURAL/HISTORICAL RESOURCES</u></p> <p>Will the proposed action result in:</p> <p>a. Destruction or alteration of any site, structure or object of prehistoric, historic, or paleontological importance?</p> <p>b. Physical change that would affect unique cultural values?</p> <p>c. Effects on existing religious or sacred uses of a site or area?</p> <p>d. Other: _____</p>	<p>X</p> <p>X</p> <p>X</p>				

3. SIGNIFICANCE CRITERIA

IMPACTS

Unknown*	No Impacts	Minor Impacts*	Potentially Significant Impacts*	Can Impacts be Mitigated*	Comment Index
<p>13. <u>SUMMARY EVALUATION OF SIGNIFICANCE</u></p> <p>Will the proposed action, considered as a whole:</p> <p>a. Have impacts that are individually limited, but cumulatively considerable? (A project or program may result in impacts on two or more separate resources which create a significant effect when considered together or in total.)</p> <p>b. Involve potential risks or adverse effects which are uncertain but extremely hazardous if they were to occur?</p> <p>c. Potentially conflict with the substantive requirements of any local, state, or federal law, regulation, standard or formal plan?</p> <p>d. Establish a precedent or likelihood that future actions with significant environmental impacts will be proposed?</p> <p>e. Generate substantial debate or controversy about the nature of the impacts that would be created?</p> <p>f. Other: _____</p>		X			13a

13 a.) Short-term, temporary impacts will occur in the quality of the recreational opportunities and experience. Short-term increases in turbidity may be experienced in the reservoir. No adverse impacts are anticipated with the temporary lowering of the reservoir during construction. All impacts are temporary, will end with the completion of the project, and will be mitigated by reclamation of the project area.

Part III. Alternatives and Evaluation

1. Description and analysis of reasonable alternatives (including the no action alternative) to the proposed action whenever alternatives are reasonably available and prudent to consider and a discussion of how the alternatives would be implemented:

A. No action - Would result in continued development and enlargement of the sinkhole / depression. This could affect the integrity of the dam itself, including the possibility of failure of the dam, particularly should a major flood episode occur. This would greatly increase the risk to the public and property downstream from a designated high hazard dam.

B. Proceed as planned with the project - This will have the beneficial effects of stopping the sinkhole / depression development and protecting the integrity of the dam, thereby reducing downstream public and property risks associated with a high hazard dam.

2. Evaluation and listing of mitigation, stipulation, or other control measures enforceable by the agency or another government agency:

All impacts cited are minor. Any areas disturbed by the construction would be reclaimed.

3. Based on the significance criteria evaluated in this EA, is an EIS required? YES / NO If an EIS is not required, explain why.

The EA is the appropriate level of analysis for this proposed action.

Because of the short-term nature of the actual construction impacts associated with this project and the beneficial, long-term affects to public safety, an EA is the appropriate level of analysis for this proposed action.

4. Describe the level of public involvement for this project if any and, given the complexity and the seriousness of the environmental issues associated with the proposed action, is the level of public involvement appropriate under the circumstances?

The appropriate level of public involvement for this proposal is the publication of the proposed action in the Great Falls Tribune and the Helena Independent Record for two consecutive weeks in the legal notices section of the newspapers. This is an appropriate level of public involvement considering the minor, non-significant impacts of the environmental issues associated with the proposed action, and the public safety issues being addressed by the repair.

5. Duration of comment period if any: Copies of the EA can be obtained from the address listed below. Comments will be accepted and should be mailed to DNRC at the address listed below. No official public comment period is proposed for this project due to the emergency nature of the repair.

6. Name, title, addresses and telephone number of the Person(s) Responsible for Preparing the EA:

James P. Domino, Environmental Specialist, Department of Natural Resources and Conservation, Water Resources Division, State Water Projects Bureau, 48 N. Last Chance Gulch, P.O. Box 201601, Helena, MT 59620-1601, (406) 444-6622.

Part IV. Narrative Evaluation and Comment

The project as proposed will not have any significant impacts. The impacts associated with the actual construction will be short-term and end with the completion of the project. Impacts associated with potentially small increases in the reservoir sediment load, weed proliferation, and the quality of the recreational experience will be mitigated by reclamation, weed control efforts, work being performed above the water level, and the lowering of the reservoir before construction. The long-term public benefits, including enhanced public safety and the protection of property downstream from a high hazard dam, outweigh any short-term, temporary negative impacts.

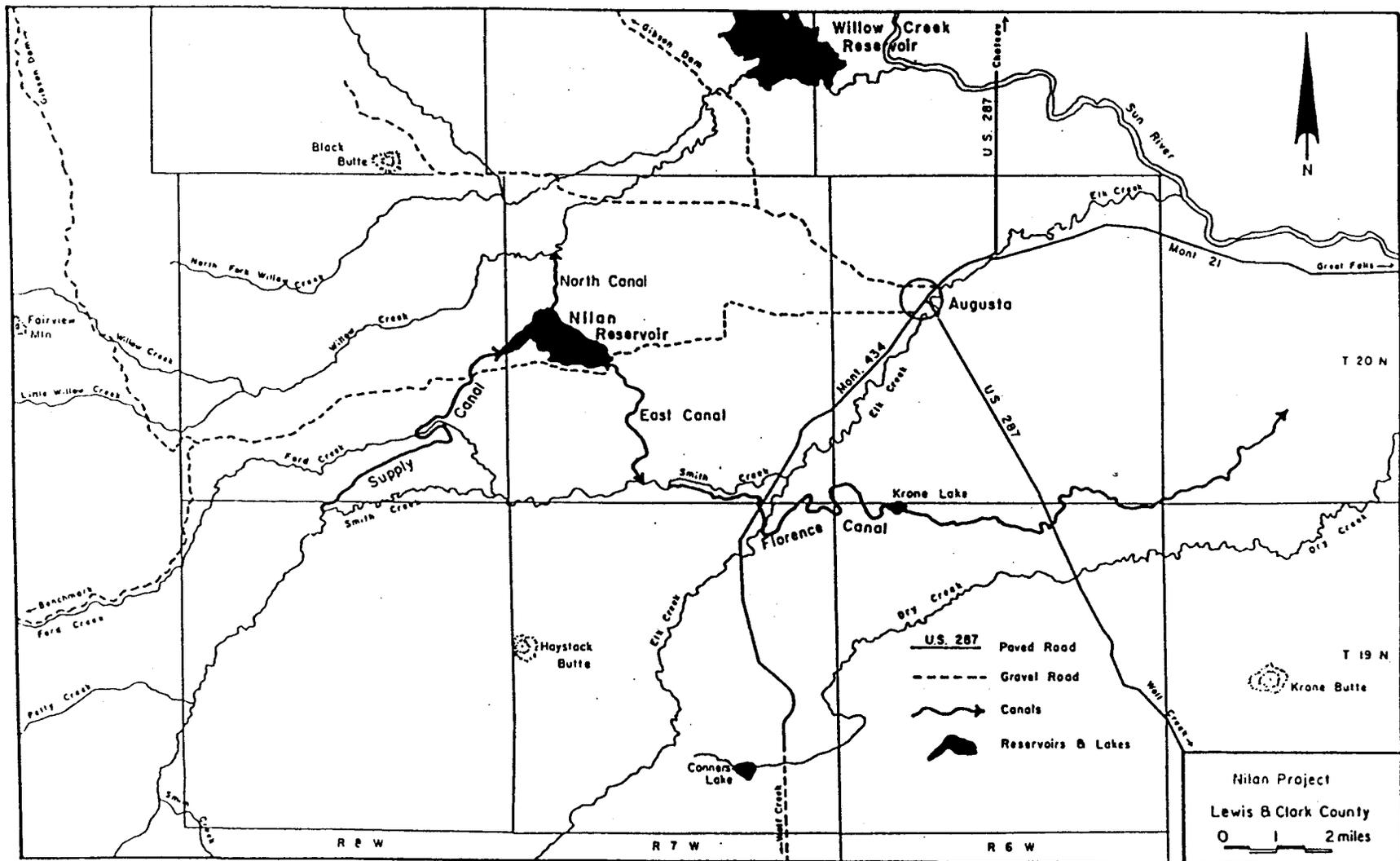
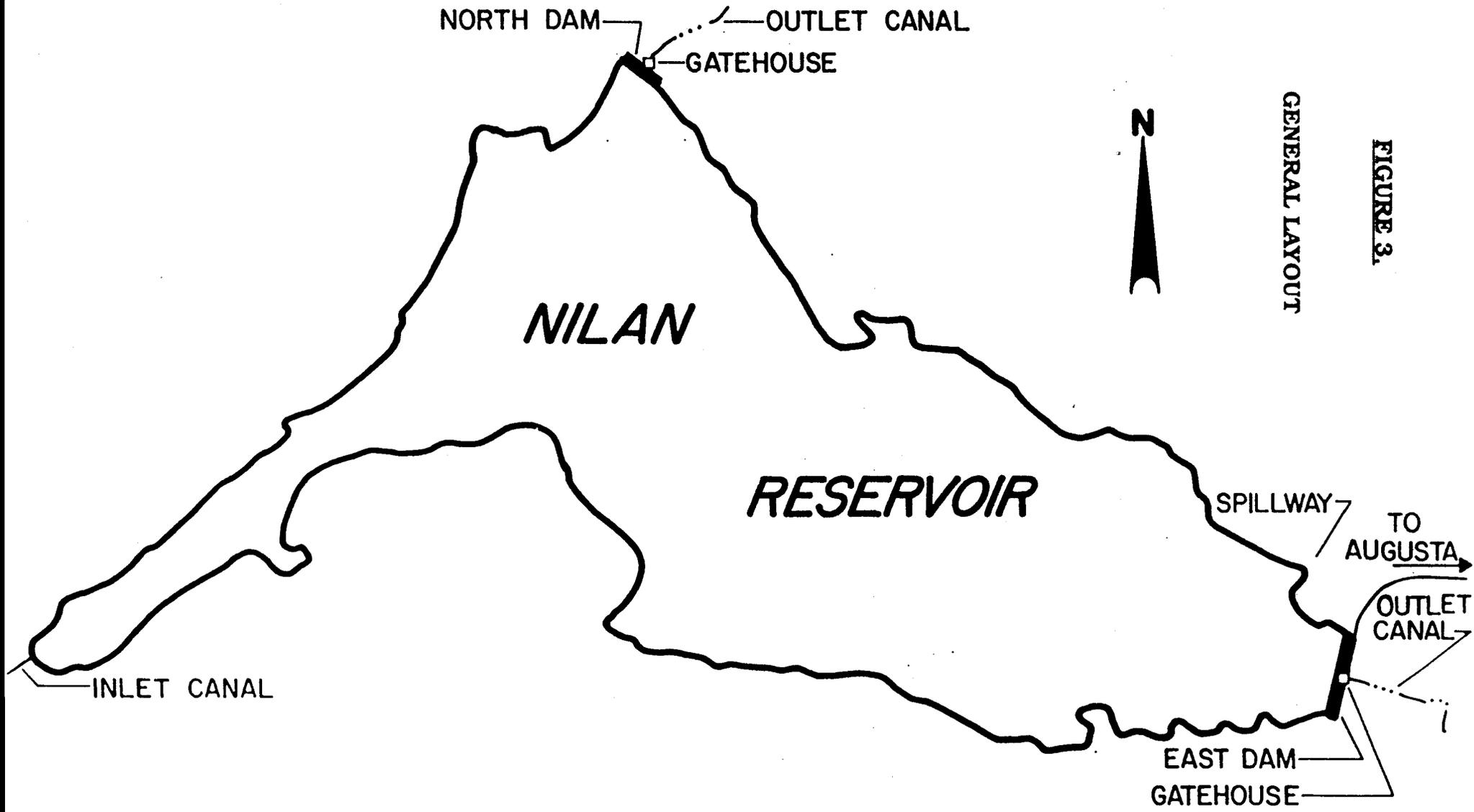


FIGURE 2. PROJECT AREA MAP



GENERAL LAYOUT

FIGURE 3.

UNITED STATES
DEPARTMENT OF AGRICULTURE
FOREST SERVICE

NILAN RESERVOIR QUADRANGLE
MONTANA-LEWIS AND CLARK CO.
7.5-MINUTE SERIES (TOPOGRAPHIC)

